

### REMARKS

Applicants respectfully request reconsideration of this application. Claims 1-24 are pending. Claims 1, 9, 13, and 19 have been amended. No claims have been canceled or added.

Claims 1, 2, 5, 9, and 10 are rejected under 35 U.S.C. §103(a) as being unpatentable over Yamaguchi (US 6,847,743 B2). Applicant respectfully traverses the rejection. Claim 1 as amended sets forth:

if both of the first and the second outgoing optical signals have failed,  
*determining a failure is outside of the optical network node, and  
maintaining a signal selection state of the switch* to continue outputting  
the only one of the first and the second outgoing optical signals in the same  
direction *without declaring that the optical network node has failed.*  
(Claim 1 as amended; emphasis added)

In contrast, Yamaguchi fails to teach at least the above limitation. According to Yamaguchi, when any failure occurs in the current system, the controlling circuit outputs a control signal to the switch driving circuit to switch the optical switches 14-1 and 14-2 to OFF and ON states, respectively, and at the same time, outputs a control signal to switch the scrambler driving circuits 11-1 and 11-2 to OFF and ON states, respectively. As a result, the operation switches from the current system to the auxiliary system. (Yamaguchi, col. 5, ln. 33-43) Yamaguchi has been silent on what happens if both the current system and the auxiliary system fail, which is also noted by the Office Action (Office Action, p. 4). However, claim 1 as amended teaches that if both optical signals fail, determining a failure is outside the optical network node and not only maintaining a signal selection state of the switch, but also *without declaring that the optical network node has failed.*

The Examiner asserts that it would have been obvious for a person of ordinary skill in the art at the time of the invention was made to recognize that it made practical sense to not declare that the switch has failed and to not change and maintain the state of the switch. In order to find an “obvious to try” argument, the Examiner must demonstrate that “a finding of one of ordinary skill in the art could have pursued the known potential solutions with a reasonable expectation of success” (MPEP § 2143(E)). However, the Examiner has not demonstrated that “maintaining a signal selection state of the switch to continue outputting the only one of the first and the second outgoing optical signals in the same direction without declaring that the optical network node has failed,” “if both of the first and the second outgoing optical signals have failed” is a solution known in the art with a reasonable chance of success. Applicant respectfully requests that the Examiner cite references that demonstrate that the missing elements are known in the art. Furthermore, it would not be obvious for a switch to not declare the optical node failed if both of the optical signals failed. For example, Palacharla discloses that if a failed signal has been sent or received from the optical equipment, a transponder failure alarm or failure alarm is generated by the optical equipment (Palacharla, para. [0041]). Thus, because the Examiner has not demonstrated that “maintaining a signal selection state of the switch to continue outputting the only one of the first and the second outgoing optical signals in the same direction without declaring that the optical network node has failed,” “if both of the first and the second outgoing optical signals have failed” is a solution known in the art with a reasonable chance of success. Applicant respectfully submits Yamaguchi does not render claim 1 obvious.

Because Yamaguchi fails to teach all limitations set forth all limitations of claim 1 as amended, claim 1 is patentable over Yamaguchi. Withdrawal of the rejection is respectfully requested.

Claim 9 is patentable over Yamaguchi for at least the reason discussed above with respect to claim 1. Claims 2, 5, and 10 depend from claims 1 and 9, respectively, and thus, are also patentable over Yamaguchi. Withdrawal of the rejection is respectfully requested.

Claims 3, 4, 11, and 12 are rejected under 35 U.S.C. §103(a) as being unpatentable over Yamaguchi (US 6,847,743 B2) in view of Palacharla et al. (US 2004/0141741 A1). Applicant respectfully traverses the rejection. Claims 3, 4, 11, and 12 depend from claims 1 and 9, respectively, and thus, include all limitations set forth in their respective base claims. For the reason discussed above with respect to claim 1, Yamaguchi fails to teach that if both the first and second optical signals fail, determining a failure is outside the optical network node and not only maintaining a signal selection state of the switch, but also *without declaring that the optical network node has failed*. Moreover, Palacharla also fails to teach the above limitation. Palacharla discloses if a failed signal has been sent or received from the optical equipment, a transponder failure alarm is generated (Palacharla, para. [0041]). Palacharla does not teach determining the failure is outside the optical network node and maintaining a signal selection state of the switch to continue outputting the only one of the first and the second outgoing optical signals in the same direction without declaring that the optical network node has failed if both of the first and the second outgoing optical signals have failed. Because neither Yamaguchi nor Palacharla, alone or in combination, teaches all limitations set forth in

claims 3, 4, 11, and 12, claims 3, 4, 11, and 12 are patentable over Yamaguchi in view of Palacharla. Withdrawal of the rejection is respectfully requested.

Claims 6-8 and 13-24 are rejected under 35 U.S.C. §103(a) as being unpatentable over Yamaguchi (US 6,847,743 B2), as applied to claim 1 above, and further in view of Kuroyanagi et al. (US 6,433,900 B1). Applicant respectfully traverses the rejection. Claims 6-8 depend from claim 1, and thus, include all limitations set forth in their respective base claim. For the reason discussed above with respect to claim 1, Yamaguchi fails to teach if both the first and second optical signals fail, determining a failure is outside the optical network node and not only maintaining a signal selection state of the switch, but also without declaring that the optical network node has failed. Moreover, Kuroyanagi also fails to teach the above limitation. Kuroyanagi discloses a system comprising XC Node o-system, XC Node l-system, optical distributor 50, and a protection switch 61 (Kuroyanagi, Figure 8A). Kuroyanagi does not teach if both the first and second optical signals fail, determining a failure is outside the optical network node and not only maintaining a signal selection state of the switch, but also without declaring that the optical network node has failed. Because neither Yamaguchi nor Kuroyanagi, alone or in combination, teaches all limitations set forth in claims 6-8, claims 6-8 are patentable over Yamaguchi in view of Kuroyanagi. Withdrawal of the rejection is respectfully requested.

Claim 13 as amended sets forth:

a plurality of optical signal switches, each of the plurality of the optical signal switches coupled to one of the first plurality of output ports and one of the second plurality of output ports, to select a first output optical signal from the first optical equipment, wherein a respective optical signal switch switches to select a second output optical signal from the second optical equipment if the first output optical signal fails and the second output optical signal has not failed, and *if both of the first and the second outgoing optical signals have failed, to determine a*

*failure is outside of the optical network node*, and a signal selection state of the respective optical signal switch remains unchanged to continue selecting the first output optical signal to output in the same *direction without declaring that the optical network device has failed*, wherein the plurality of optical signal switches are switched together substantially simultaneously.

(Claim 13 as amended; emphasis added)

In contrast, neither Yamaguchi nor Kuroyanagi teaches the above limitation.

According to Yamaguchi, when any failure occurs in the current system, the controlling circuit outputs a control signal to the switch driving circuit to switch the optical switches 14-1 and 14-2 to OFF and ON states, respectively, and at the same time, outputs a control signal to switch the scrambler driving circuits 11-1 and 11-2 to OFF and ON states, respectively. As a result, the operation switches from the current system to the auxiliary system. (Yamaguchi, col. 5, ln. 33-43) Yamaguchi has been silent on what happens if both the current system and the auxiliary system fail, which is also noted by the Office Action (Office Action, p. 4). Likewise, Kuroyanagi also fails to teach the above limitation. Kuroyanagi discloses a system comprising XC Node o-system, XC Node 1-system, optical distributor 50, and a protection switch 61 (Kuroyanagi, Figure 8A). Because neither Yamaguchi nor Kuroyanagi, alone or in combination, teaches all limitations set forth in claim 13, claim 13 is patentable over Yamaguchi in view of Kuroyanagi. Withdrawal of the rejection is respectfully requested.

Claim 19 is patentable over Yamaguchi in view of Kuroyanagi for at least the reason discussed above with respect to claim 13. Claims 14-18 and 20-24 depend from claims 13 and 19, respectively, and thus, are also patentable over Yamaguchi in view of Kuroyanagi. Withdrawal of the rejection is respectfully requested.




## CONCLUSION

Applicant respectfully submits that the rejections have been overcome by the amendments and the remarks, and that the pending claims are in condition for allowance. Accordingly, Applicants respectfully request the rejections be withdrawn and the pending claims be allowed.

Pursuant to 37 C.F.R. §1.136(a)(3), Applicant hereby requests and authorizes the U.S. Patent and Trademark Office to (1) treat any concurrent or future reply that requires a petition for extension of time as incorporating a petition for extension of time for the appropriate length of time and (2) charge all required fees, including extension of time fees and fees under 37 C.F.R. 1.16 and 1.17, to Deposit Account No. 02-2666.

Respectfully submitted,  
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